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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,185	04/22/2004	Waheed Younis	138-01 US	7089
25319	7590	09/28/2005	EXAMINER	
FREEDMAN & ASSOCIATES 117 CENTREPOINTE DRIVE SUITE 350 NEPEAN, ONTARIO, K2G 5X3 CANADA			BRUCE, DAVID VERNON	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/829,185	Applicant(s) YOUNIS ET AL.	
	Examiner David V. Bruce	Art Unit 2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 23-28 and 32-34 is/are rejected.
- 7) ☒ Claim(s) 8-22, 29-31 and 35-37 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20040422</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 5-7, 23-26, and 32-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Stergiopoulos *et al.* US 6,236,705 B1. Stergiopoulos *et al.* shows all of the features of the instant invention including X-ray CT with motion tracking/correction (least motion phase) where projection data are acquired at various times and locations including along the same line at different time instances, and a CT image reconstructed from projection data acquired during a selected motion phase of the object (abstract, column 2 lines 34-46, column 3 lines 29-45, column 6 lines 14-33, column 10 lines 29-67, and claims 12-18).

3. Claims 1, 2, 5-7, 23-26, and 32-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Heuscher US 2004/0081270 A1. Heuscher shows all of the features of the instant invention including helical X-ray CT with motion tracking/correction (least motion phase) where projection data are acquired at various times and locations including along the same line at different time instances, and a CT image reconstructed from projection data acquired during a selected motion phase of the object (abstract, paragraphs [0011], [0012], [0041], [0042], [0059] - [0064], and [0069]).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stergiopoulos *et al*. As shown above, Stergiopoulos *et al.* shows all of the features of the instant invention except specifying whether determining motion projection data happens before or after determining projection data for at least a predetermined cross-section of the object. It is well known that these two operations are relatively linear, and thus the order is interchangeable. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to arrange these relatively linear operations in either order motivated by the desire to allow the clinician to either select the region of interest from a single phase image, or to select the phase to display from an image or the ROI.

6. Claims 3, 4, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heuscher. As shown above, Heuscher shows all of the features of the instant invention except specifying whether determining motion projection data happens before or after determining projection data for at least a predetermined cross-section of the object. It is well known that these two operations are relatively linear, and thus the order is interchangeable. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to arrange these relatively linear operations in either order motivated by the desire to allow the clinician to either select the

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region of interest from a single phase image, or to select the phase to display from an image or the ROI.

Allowable Subject Matter

7. Claims 8-22, 29-31, and 35-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: With all the limitations as claimed, claims 8-14, 29, 30, 35, and 36 address SOC with an unwrapping filter, claim 15 addresses a sliding window, and claims 16-22, 31, and 37 address an integral of a Radon transform. These features are neither shown nor fairly suggested in the prior art.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Johnson *et al.* US 2004/0082846 A1 is similar to Heuscher, and Stergiopoulos *et al.* US 6,535,570 B2 is similar to Stergiopoulos *et al.* cited above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David V. Bruce whose telephone number is (571) 272-2487. The examiner can normally be reached on M - Th and alt Fri 8:00 - 4:30 subject to I-Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David V Bruce
Primary Examiner
Art Unit 2882

dvb